Volunteer Firemen

Professional Journal of the Volunteer Firemen's Section of the National Fire Protection Association

Volume 3, Number 2 **BOSTON, MASSACHUSETTS** **February, 1936**

Keystone

Airplane view showing one of the Malibu Mountain (Los Angeles County, California) fires burning toward a CCC camp.

The October Conflagrations

Work of Los Angeles County Fire Department on Blazes Which Burned 34,000 Woodland Acres, 222 Buildings, and Threatened Whole Cities

FOR those who have the notion that this fire business is a hit-or-miss activity should be drawn the picture of fire authorities in southern California during late October of 1935. Among the large cities, the Fire Department of Los Angeles is outstanding and overshadows only in size the departments of Pasadena, Glendale, Alhambra, Long Beach and numerous other cities in that part of the country. Readers of VOLUNTEER FIREMEN are also familiar with the unusual fire department of Los Angeles County, which, under the direction of the Department of County Forester and Fire Warden, welds 31 suburban and rural fire districts into a strong and effective fire organization.* This latter department is responsible also for the protection of the forest lands of the county. In addition the U. S. Forest Service maintains crews of rangers to protect

This story is written from a report prepared for the National Fire Protection Association by Spence D. Turner, Chief Forester and Fire Warden, Los Angeles County, Calif.

*Los Angeles County's Fire Department, Vol. 1, No. 14, Page 4 (November, 1934).

A forest truck of the Los Angeles County, Calif., Forestry Department. It is equipped with a pump, a large water tank in the center of the hose body, hose, ladders, and a portable pump.

the large Angeles National Forest.

It was certainly no hit or miss concern with which these distinguished and experienced fire authorities were watching from day to day the reports of temperature, humidity and wind velocity last October. They had vividly before them the experience of the San Gabriel fire of 1924 in the Angeles National Forest which defied the best efforts of the county and federal fire forces for seven weeks, devastating 65,000 acres and costing over $250,000 to control.

For the week preceding Oct. 23, every lookout tower and forest station was manned 24 hours a day, and fire forces were ready for mobilization at a moment's notice. To this forethought and planning is due in no small measure the effectiveness of the fire fighting activities when on October 23 the fire forces of Los Angeles County were faced with conditions which might have made the stoutest and most experienced fire fighter despair.

On that date four major forest conflagrations blazed forth. These burned over 32,816 acres of woodland and in addition caused the destruction of a total of 222 buildings with an estimated loss of $348,535. The damage to forest areas burned is measured in terms of their value in

Forces Mobilized to Fight Los Angeles County's October Conflagrations

Las Flores Fire

	Men	
Department of County Forester and Fire Warden		
5 Engine Companies from Fire Protection Districts	48	
3 combinations with 600 gal. tanks		
1 combination with 250 gal. tank		
1 combination with 150 gal. tank		
CCC and Soil Conservation Service Camps	313	
Total		361
U. S. Forest Service		
Regular force	28	
1 combination with 850 gal. tank		
2 combinations with 450 gal. tanks		
1 combination with 150 gal. tank		
CCC Camps	1150	
Total		1178
City of Pasadena — 2 engine companies		10
Total		1549

Kagel Canyon Fire

	Men	
Department of County Forester and Fire Warden		
Various crews	18	
1 combination with 600 gal. tank		
1 combination with 150 gal. tank		
1 patrol car with 50 gal. tank		
CCC and Soil Conservation Service Camps	91	
Total		109
U. S. Forest Service		
Regular forces	20	
1 combination with 450 gal. tank		
1 combination pumper and squad car		
1 patrol car		
CCC Camps	750	
ERA	100	
Total		870
City of Los Angeles		
Engine company crews		20
8 pieces of equipment, including 2 tractor combinations with tanks		
Total		999

Malibu Fires

	Men	
Department of County Forester and Fire Warden		
Field Divisions	187	
1 comb. with 800 gal. tank		
8 comb. with 600 gal. tanks		
2 comb. with 250 gal. tanks		
1 patrol car, 50 gal. tank		
9 portable pumps		
County Fire Prot. Districts	11	
1-750 GPM pumper		
Forces from CCC, ERA, and SCS camps	1720	
Total		1918
U. S. Forest Service		22
2 comb. with 450 gal. tanks		
State Division of Forestry		6
City of Beverly Hills		5
1 tank truck company		
Malibu Beach Colony		1
1-300 GPM pumper		
Ventura County		
County crew	8	
1 combination with tank		
CCC and ERA men	40	48
Total		2000

retarding runoff and erosion, and as a flood prevention factor. The County Forester's estimate places this damage at an additional $3,269,300.

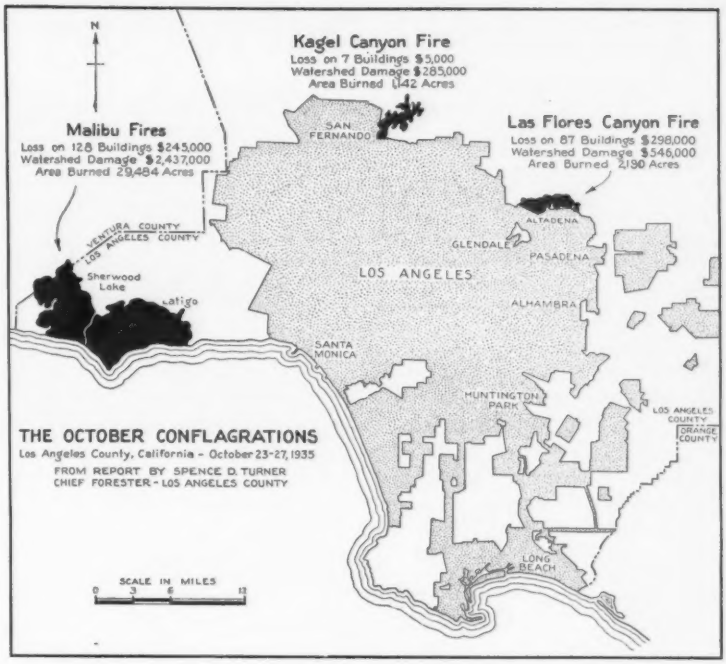
These fires occurred within a period of ten hours during which the Los Angeles County fire organizations were called upon to handle fourteen other serious blazes. The number and size of most of these fires would not ordinarily have taxed the fire fighting resources of the county had its facilities not been concentrated on two fires in the Malibu mountains. These two fires eventually joined to cover a total of 28,599 acres.

Spence D. Turner, Chief Forester and Fire Warden of Los Angeles County, was the principal director of the fire fighting efforts during the hectic days of the October conflagrations. To understand the problem Chief Turner and his forces faced, it is necessary to have a picture of the country in which the fires occurred. The metropolitan area of Los Angeles sprawls between the coast and the foothills of neighboring mountains, where many citizens have built cabins or residences. In one case fifty tuberculosis patients, mostly bedridden, were removed without loss of life from a sanitarium destroyed by the fire.

Fire control efforts were generally successful in saving the buildings that were located and constructed with some regard to fire safety. As usual in such fires, the loss of many buildings could be attributed to the ready ignition of wooden shingle roofs.

Fighting such fires is also a real problem because of special difficulties presented by the natural features of the section. Much of the woodland is in mountainous country inaccessible by roads and there are few natural firebreaks. Natural sources of water are almost entirely lacking, a condition rarely encountered in other sections of the country where rivers, creeks or ponds offer locations for fire department pumpers to take suction.

The sequence of the nine principal fires which threatened the Los Angeles area was as follows:



Name of Fire and Time of Origin	*Size in Acres*
Las Flores (Oct. 23, 1:42 A.M.)	2,190
Latigo (Oct. 23, 3:44 A.M.)	15,297
Kagel (Oct. 23, 8:48 A.M.)	1,142
Sherwood Lake (Oct. 23, 11 A.M.)	14,187
Barba (Oct. 25, 11:30 A.M.)	23
Sloan (Oct. 25, 1:17 P.M.)	746
Savage (Oct. 25, 10 P.M.)	230
Standard (Oct. 27, 11 A.M.)	31
La Brea (Oct. 27, 5:30 P.M.)	50

The locations of the fires in Los Angeles County are shown on the accompanying map. An accompanying tabulation shows the men and apparatus employed at the fires.

It was determined to make a stand against the Malibu fires near the Castro Peak lookout tower. At this point was located a 5000 gallon steel storage water tank, one of a number of such water storage locations which had been provided so far as available finances had permitted by the Los Angeles County fire organizations. In addition, a fleet of fire apparatus tank trucks were taken to the top of the mountain. This included five 600 gallon tanks, one 450 gallon tank, and one 250 gallon tank, an aggregate, with the large storage tank, of 8700 gallons. An emergency firebreak was constructed down the south slope of Castro Peak. It extended about 600 ft. up the slope of an adjoining mountain. Along this firebreak 2600 ft. of 1½ in. double-jacketed rubber-lined hose was laid from a pumper at the top of the mountain. At each 400 ft. interval in this line two 150 ft. lines of 1 in. single-jacketed rubber-lined hose were siamesed. Valves were placed so that in the event of a break in the line as much water as possible would be saved. Two pumpers were used to relay water from the 5000 gallon tank to this main line of fire hose. Three of the 600 gallon tank trucks were assigned to the duty of keeping the 5000 gallon storage tank full.

With the hose line laid and the fire break constructed it was then possible to backfire along the firebreak and with the hose lines keep the fire under control. Backfiring is always dangerous and, without the hose lines, it is doubtful whether the backfire work would have been successful. Even then on a number of occasions sparks carried fire across the firebreak and only strenuous efforts with hose lines kept the fire from getting away.

Effective Salvaging Operations

Water Damage Prevention Methods as Practised by the Volunteer Salvage Corps of Nyack, N. Y., Make Fire Fighting Operations More Craftsmanlike

By Captain William Paul Babcock

THE more than twenty years of successful operation of the volunteer salvage corps of Nyack, N. Y., showed us in a lot of ways how fire fighting operations may be made more craftsmanlike and effective. Some of the things we learned are set down here for the help of any readers who may be developing this particular phase of fire fighting operations in their own company or department. Our experience should be particularly significant, since it was obtained under the conditions of volunteer fire department work which implies certain handicaps that fully paid and equipped fire departments do not encounter.

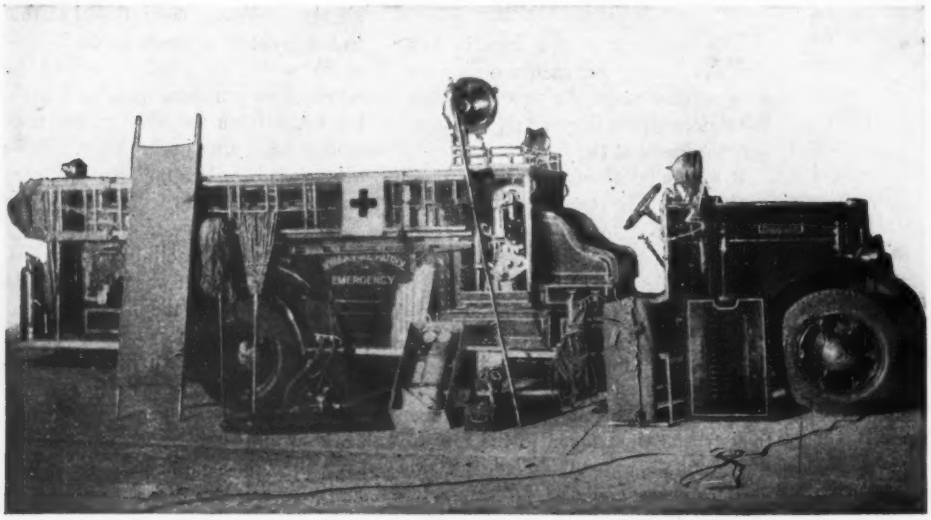
One difficulty is obtaining waterproof covers to be carried on apparatus, and another is getting these and other salvaging equipment used at fires. In the first respect there is sometimes trouble in communities with few pieces of apparatus because such apparatus are necessarily crowded. Objections to piling on more tools and covers are usually overcome when the effectiveness of these tools in making possible a good job of fire control has been fully demonstrated. Many old time fire officers who scoffed at the modern methods represented by salvage work, have become enthusiastic boosters for it when seeing indifference toward the fire department translated into active support for it after it has established a reputation for competent handling of fires and minimization of damage.

In another respect volunteer fire departments have a definite advantage over paid departments because the volunteer departments generally have good manpower available at fires. In such departments men are assigned to spread covers and take care of surplus water as soon as lines are placed. Two to four men can do much good salvage work at a fire in a short time. I know a number of officers who have put "sidewalk firemen" to work on such jobs. Given a responsible part of the fire fighting job, these individuals do not feel as disposed as otherwise to tell how "all wrong" they think the fire fighting work is being done.

Of course, the ultimate effectiveness of salvage work requires that every member of the department be trained in how to throw covers and how to negotiate water out of a building with the least possible damage to floors and contents. Years ago, before salvage procedures were as highly developed or as widely practiced as they are in many fire departments today, more damage was generally done by water throwing operations than by the fire itself.

Years ago in New York City, merchants maintained a patrol to aid in the prompt discovery of fires and to give the alarm. These patrolmen were later provided with bags, and when a fire was found they placed valuable merchandise in the bags and carried them to a safe distance, out of the way of the firemen. Where merchandise could not be moved, it was covered with the bags. Later, waterproof covers were substituted, and the technique of "covering up" at a fire developed.

As a procedure for building good will for the fire department there is nothing quite like advance inspections made to determine how salvaging operations may be carried out in a given place of business during a fire. At the time of making fire hazard inspections the management is frequently on the defensive. When checking up for salvage purposes you discuss with the merchant the damageability of his stock, and he can see without any trouble that what you are in-



Equipment used in salvage work by the Volunteer Salvage Corps of Nyack, New York. The rescue and flood-lighting equipment shown are also carried on this modern apparatus.

terested in is the same thing that interests him. The fire department goes up a goodly number of notches in the scale of his estimation.

As you review the conditions you find, you make him realize that little matters such as the arrangement of his stock, may make all the difference in the world in case of fire. You can get him to see the fire department's problem of reducing water damage by showing him how covers must be thrown over his counters, and how other covers are used to drain water through the aisles to the outside or to a lower level. He probably never realized that it must be possible to hang covers not only over the front of material on shelves but also between the shelves and the side walls of the store. I have made friends with many merchants by merely pointing out the obvious desirability of storing piles of goods on skids instead of directly on the floor. Skids which bring the stock at least four inches off the floor will usually prevent the bottom layers from being damaged.

During such an inspection you can locate the drain from the cellar, if there is one, and in such case point out the importance of keeping the drain clear and unobstructed by piles of merchandise. One of the first things that must be done at fires is to locate this drain, open it, and protect it with a screen to prevent clogging. Getting accumulated water out of a cellar is important, as foundations are often undermined otherwise.

Where money is slow in forthcoming from official sources, it is frequently possible to get merchants who are sold on the value of the work to contribute the cost of waterproof covers for the department.

In Nyack we have found a way to maintain our supply of covers. After a fire we allow them to remain in a building for 48 hours (not counting Saturdays, Sundays or holidays) without making any charge for them. This convenience is greatly appreciated by property owners as it gives them time enough in which to make repairs. For a longer period, however, we charge one dollar a day per cover. An exception to the rule is made in the case of fires in dwellings of families to whom such a charge would be a hardship, and in the case of charitable institutions.

A fire fighting job that obviously reflects no credit on the fire department.

This candy store was able to resume business without material loss as a result of a good salvage job. The fire fighters do not have to tell the proprietor that they know their stuff.

The special tools for salvage work are simple enough. In addition to waterproof covers, they include pails, mops, squeegees, sprinkler tongs, augurs, sponges, wipe rags, and tar paper for covering roof holes. If a special piece of apparatus such as we have in Nyack can be provided, so much the better. We have found flood-lighting equipment valuable, particularly at night fires.

With salvage equipment on all apparatus, it is possible for salvage work to begin at the time of arrival of the first company at the fire, no matter what type of company it is — ladder company, engine company, or special salvage company. The officer in charge can visualize the necessary salvaging operations at the time he makes his survey or "size-up" to determine what needs to be done first. The few seconds given to such consideration will usually save much unnecessary damage, both in the opening up of the buildings and in the direction of hose streams.

Answers to Discussion Topics

29

Q. *Describe a method by which one fireman may effectively carry an injured person.*

A. Whatever method is used care should always be exercised that the injured person will not be subjected to further injury or unnecessary pain. The "fireman's carry" is described below.

With the patient lying in a face downward position, the rescuer stands at the patient's head, facing toward the patient. Rescuer puts his hands under the patient's armpits, lifting him to his knees. Taking a new hold around the patient's waist, rescuer lifts patient to his feet. Rescuer, with his left hand, grabs the right wrist of the patient and draws the arm over his head and places the arm on his left shoulder. At the same time, the rescuer twists around to the left, stoops, and slipping his right arm between the patient's legs, and around the patient's right knee, he grabs the patient's right wrist. The patient is then hunched into a comfortable position across the back of the rescuer's shoulders. Other good lifts and carries may be learned with a little practice.

Great speed is seldom necessary. Severe bleeding, artificial respiration, treatment for shock, and splinting of fractures should be cared for at the place where the injury occurred, before transporting the patient to medical aid.

Problem Questions
FOR FEBRUARY

Suggested for discussion at company and department meetings this month

31

After returning to quarters from a fire, what things need to be checked in order to make certain that the apparatus and other equipment will be maintained in good working condition?

32

What common chemicals are hazardous when they become wet or moist?

Watch for the answers in the next issue of VOLUNTEER FIREMEN

30

Q. *When forcing entrance into a building in which there is a fire, what steps should be taken to minimize the damage that firemen may do to doors, windows, and household furnishings or merchandise?*

A. With the right tools and proper training in their use most locked buildings on fire may be entered with only a slight damage to property.

When several companies or a large number of men respond to a small fire, only a few men should be sent into the building. A large number of men rushing into a building with pike poles and other tools and equipment are apt to damage household fixtures and furnishings and unnecessarily soil carpets or mar floors. This practice also reduces to a minimum the confusion and interruption to business that generally accompanies and follows a fire and fire department operations.

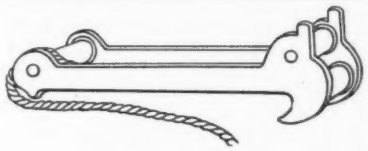
There is no excuse for the reckless smashing of doors and windows. It is best to enter through a window instead of forcing doors, especially when no fire can be seen in the building. Second floor windows are generally unlocked, and may easily be opened from a ladder in order to get inside to make an examination.

Tools are available with which doors may be opened with only a small amount of damage. Attempting to force a heavy glass paneled door generally results in considerable damage to the door frame as well as to the glass. As a rule it is better to break the panel and save the door.

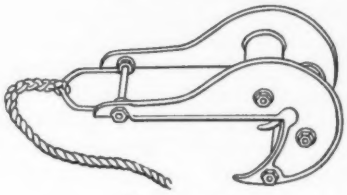
Inside doors may be opened by removing the door stop and springing the lock with a bar. With a good bar, a door may be resprung into a closed position, and the stop nailed back in place without damage. When opening a door from the side opposite the stop, the hinge pins may be removed and the door opened.

When doing salvage work in multiple occupancy buildings, a large number of inside doors may have to be opened. Carelessly breaking in saves neither time nor property.

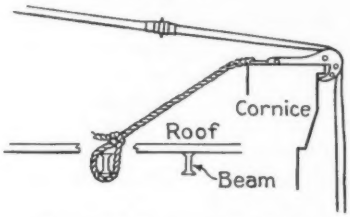
Fire Tools



New York



Bresnan



Hose Hoists or Rollers

CARRYING hose up ladders in order to lay lines through windows of upper stories or onto roofs of buildings takes time as well as requiring several men to do the job. Also when hose is pulled over sharp or rough edges of window sills or cornices it is usually injured.

These difficulties may be overcome by using a hose hoist or roller. Other equipment such as ladders and heavy tools may also be raised to roofs or upper floors by using a rope in connection with this device.

Devices of this type consist of a metal frame with rollers. At one end is a hook designed to fit over the edge of a cornice or window sill and at the other end a rope is attached. After hooking the device over a cornice or sill, it is held in place by securing the rope to any substantial projection or rafter.

Two types are illustrated above. The Bresnan is probably more widely used than the New York type, and is shown in use on a cornice.

International
The biggest fire in 1935. Ruins of the Hiram Walker & Sons, Inc., whiskey warehouse fire. The loss is estimated to be from $2,000,000 to $3,000,000.

30 Big Fires in 1935

DURING the year 1935 there were thirty fires in the United States and three in Canada involving a loss of $250,000 or more each. There were thirty-four such fires in the United States in 1934 and twenty-two in 1933.

Each year the N.F.P.A. Department of Fire Record prepares a list of the biggest fires. The location and what burned is shown on the accompanying map for each of the thirty biggest fires in 1935.

According to preliminary estimates the total fire loss for the year will be about $259,159,945 which is the lowest loss figure in twenty years. The annual average for the past twenty years is approximately $420,000,000.

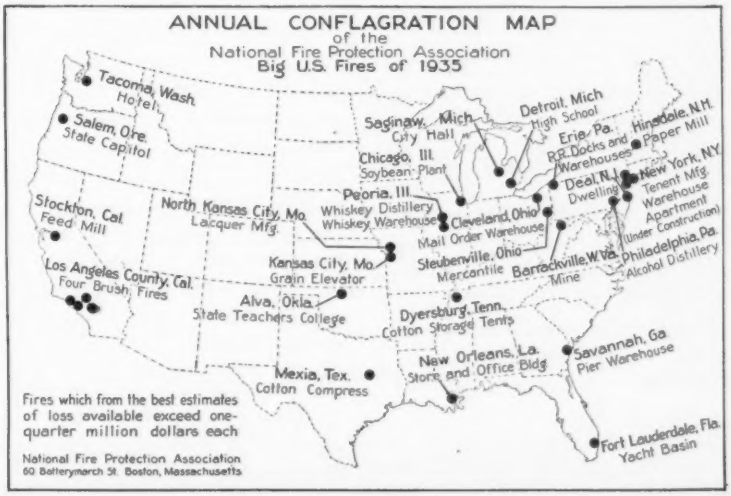
Volunteer fire departments had to cope with several of the thirty biggest fires. One-third of the fires occurred in communities of less than 9000 population where volunteer or small part-paid departments provide the principal public fire protection.

The $450,000 fire which destroyed a 55-room frame constructed mansion at Deal, N. J., was fought by four volunteer fire departments and presented an interesting situation. The firemen were seriously handicapped because the fire was well advanced when discovered. The iron gates to the entrance leading to the mansion were locked and it took several minutes to batter them down with a pumper. By this time the heat of the fire was so intense that the equipment was of little use. Inadequate water supply and the distance to the hydrants were other factors contributing to the large loss.

In another interesting case volunteers had to bear the load of fighting the $381,000 fire in a three-story brick paper mill at Hinsdale, N. H. The fire was probably caused by a hot bearing on an overhead pulley, and the loss was largely due to the slow operation of the old sprinkler system and defective sprinkler heads. Firemen used ten hose streams supplied by a 12-inch public main, and four streams from two pumpers taking suction from a river.

The principal reason for the large losses in these thirty fires was inferior building construction and large amounts of burnable material in one place. Five of the fires started in buildings of fire-resistive or semi-fire-resistive construction but in most of these cases the damage to the building was only a small part of the total loss, the largest losses being due to hazards of occupancy or excessive amounts of combustible contents.

One-third of the big fires had gained considerable headway when discovered or when the alarm was sounded. Other outstanding reasons for the large losses were ineffective fire fighting, unprotected vertical openings, point of origin difficult to reach for fire fighting, and inadequate water supplies. Obviously in many instances the public fire fighting facilities were at a disadvantage, but did well under the circumstances to keep the losses as low as they did.


ANNUAL CONFLAGRATION MAP
of the
National Fire Protection Association
Big U.S. Fires of 1935
Tacoma, Wash. Hotel
Salem, Ore. State Capitol
Stockton, Cal. Feed Mill
Los Angeles County, Cal. Four Brush Fires
North Kansas City, Mo. Lacquer Mfg.
Kansas City, Mo. Grain Elevator
Alva, Okla. State Teachers College
Mexia, Tex. Cotton Compress
Saginaw, Mich. City Hall
Chicago, Ill. Soybean Plant
Peoria, Ill. Whiskey Distillery Whiskey Warehouse
Cleveland, Ohio Mail Order Warehouse
Steubenville, Ohio Mercantile
Barrackville, W. Va. Mine
Dyersburg, Tenn. Cotton Storage Tents
New Orleans, La. Store and Office Bldg.
Detroit, Mich. High School
Erie, Pa. R.R. Docks and Warehouses
Deal, N. J. Dwelling
Hinsdale, N. H. Paper Mill
New York, N. Y. Tenant Mfg. Warehouse Apartment (Under Construction)
Philadelphia, Pa. Alcohol Distillery
Savannah, Ga. Pier Warehouse
Fort Lauderdale, Fla. Yacht Basin
Fires which from the best estimates of loss available exceed one-quarter million dollars each
National Fire Protection Association
60 Batterymarch St. Boston, Massachusetts

Volunteer Firemen

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Rewarded for Attendance At the end of each year the Jenkins Township Volunteer Hose Company No. 1 of Pittston, Pennsylvania, rewards twenty of its members having the best record of attendance at fires during the past year by placing their names on the renewal blank to receive VOLUNTEER FIREMEN for the coming year. Mr. Joseph B. Gavin, the company's secretary, reports that the men try hard to keep their names on the list to receive the magazine by responding to as many alarms as possible throughout the year. He also says that receiving the magazine keeps the men interested in fire subjects.

Membership Honor Roll Nine volunteer fire departments are now on the Honor Roll of the Volunteer Firemen's Section. Each of these departments has 40 or more men enrolled as listed below. The New York Mills, N. Y., and the Martin, S. D., departments tie for first place with 59 men each on the membership lists.

59 New York Mills Fire Department, New York Mills, New York.
59 Martin Fire Department, Martin, South Dakota.
50 Franklin Fire Department, Franklin, New Hampshire.
44 Amherst Fire Brigade, Amherst, Nova Scotia.
43 Richmond Fire Department, Richmond, Maine.
41 McAllen Volunteer Fire Department, McAllen, Texas.
40 Southwest Lumber Mills, Inc. Fire Dept., McNary, Arizona.
40 Delaware County Firemen's Association, Lansdowne, Pennsylvania.
40 Atlantic Sugar Refineries, Montreal, Quebec.

A total of 28 departments or companies have joined with 30 or more men each. Of the hundreds of departments or companies that are members, the average number of men signed up is 22 per company or department. Eighteen companies or departments are signed up with less than 20 men each, but the majority come in with an even 20 men.

Lucky Oklahoma Few states give the support and encouragement to their fire departments as does the State of Oklahoma. The secretary of the Oklahoma Fire Chiefs' Club, Chief Pence of Stillwater, wields an influence for progressive fire fighting that far exceeds the boundaries of his own state. His frequent bulletins to the chiefs in Oklahoma are full of encouragement, enthusiasm and news. State Fire Marshal Theimer includes a personal message with the bulletins, putting his full cooperation behind the fire chiefs. The vocational education department at the state college through W. Fred Heisler and Jim Kamp have developed training for firemen in Oklahoma to a high degree. Mr. Heisler's latest production is a comprehensive manual on elementary science for fire fighters, a most valuable contribution. H. J. Clark, Chief Engineer of the Oklahoma Inspection Bureau, is well known to every fire department in the state for his constructive help in fire problems.

These forces and these men working together give Oklahoma a high place in the standing of states from the fire department standpoint.

New Members and Renewals Last month, 23 departments with 511 men enrolled in the Volunteer Firemen's Section for the first time, and 42 departments with 915 men renewed their memberships, making a total of 9,669.

Southwest Lumber Mills, Inc. Fire Dept., McNary, Arizona.
Claremont Fire Department, Claremont, California.
Eastport Fire Department, Eastport, Maine.
Richmond Fire Department, Richmond, Maine.
Rumford Fire Department, Rumford, Maine.
East Detroit Fire Department, East Detroit, Michigan.
Harbor Springs Fire Department, Harbor Springs, Michigan.
Erskine Volunteer Fire Department, Erskine, Minnesota.
Nopeming Fire Department, Nopeming, Minnesota.
Estancia Fire Department, Estancia, New Mexico.
Las Vegas Fire Department, Las Vegas, New Mexico.
King Ferry Fire Company, King Ferry, New York.
Greensburg Volunteer Hose Company No. 8, Greensburg, Pa.
West View Fire Company No. 1, West View, Pennsylvania.
Alexandria Fire Department, Alexandria, South Dakota.
Elliott Hose Company No. 1, Tyndall, South Dakota.
Clarksville Fire Department, Clarksville, Tennessee.
Kilgore Fire Department, Kilgore, Texas.
Moorefield Volunteer Fire Company, Moorefield, West Virginia.
Neillsville Fire Department, Neillsville, Wisconsin.
Red Deer Fire Department, Red Deer, Alberta.
Dauphin Fire Brigade, Dauphin, Manitoba.
Annapolis Royal Fire Company, Annapolis Royal, Nova Scotia.

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HANDBOOK of FIRE PROTECTION

Eighth Edition (1935)

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6. Heating Appliances and Chimneys.
7. Flammable Liquids.
8. Gases and Internal Combustion Engines.
9. Finishing Processes.
10. Electricity.
11. Protection Against Lightning.
12. Dust Explosions.
13. Hazardous Chemicals and Explosives.
14. Nitrocellulose Film and Pyroxylin Plastics.
15. Spontaneous Heating and Ignition.
16. Fire Causes by Occupancies.
17. Retarding the Spread of Fire.
18. Measurement of Fire Severity.
19. Fire-resistive Construction.
20. Heavy Timber Construction.
21. Roofs and Roof Coverings.
22. Protection of Openings.
23. Protection Against Exposure.
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25. Fire Retardant Treatments.
26. Prevention of Water Damage.
27. Public Fire Protection.
28. Fire Prevention Activities of State Fire Marshals and City Fire Departments.
29. Public Water Supplies.
30. Fire Pumps.
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32. Outside Private Protection.
33. Standpipes and Hose Systems.
34. Fire Extinguishers and Fire Pails.
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37. Standard Sprinkler Installations.
38. Dry Pipe and Other Non-Freezing Sprinkler Systems.
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40. Water Flow Sprinkler Alarms.
41. Sprinkler Inspection and Supervision.
42. Sprinkler Maintenance Problems.
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46. Signaling Systems and Thermostats.
47. Self Inspection.
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FIRST PRIZE—$10.00

LYNN L. HYDER,
Fire Dept., Johnson City, Tennessee

One Extinguisher Saves Two Lives

"After much work, I finally talked the owner of an auto repair shop into putting in a foam type extinguisher. Three weeks after it was installed, a mechanic was washing his hands and arms in a pan of gasoline when another man lighted a match close by. His arms and the pan of gasoline caught fire. Someone used the foam extinguisher and quickly extinguished the fire on the mechanic as well as in the pan.

"I refilled this extinguisher, and in less than three weeks there was another fire in the shop. After pouring gasoline into the clutch of a car, a mechanic stepped on the starter to turn over the clutch and thus clean the clutch. There was an explosion. Gasoline and fire shot all over the mechanic's face and the inside of the car. Again, the same extinguisher was used to put out a fire and save a life.

"This is a case where the price of one extinguisher has prevented severe burns to two persons (and probably saved their lives) and prevented much damage to the shop and contents."

SECOND PRIZE—$3.00

C. G. SWANN,
Volunteer Fire Dept., Beeville, Texas

Large Dwelling Fire Extinguished

"Our department was called out at 10:15 this morning to a fire in a large two-story house. The alarm was turned in by neighbors, and the occupants of the house knew nothing about the fire until we arrived.

"I was the first one to go into the house and reach the seat of the blaze. Opening the door to the room where the fire was located, I told the Chief that I didn't think extinguishers would do any good. He said it was worth trying, and taking the 2½-gallon soda-acid extinguisher from my hand, he directed it at the fire and immediately extinguished it.

"The blaze was confined to the walls and ceiling of one room. The extinguisher saved the house and possibly one or two others because there was a strong north wind blowing. Had the fire broken through the roof, it would have caused plenty of trouble."

THIRD PRIZE—$2.00

B. F. SIMONS, *Secretary*,
Fire Dept., Fredonia, New York

Major Catastrophe Averted

"An accident observed one afternoon late last October in a neighboring village cured me of carelessly driving over a flame. I had stopped at a grocery to make a small purchase and noticed a man burning leaves which he had raked from his yard to the edge of the pavement. The driver of a large truck had parked on the opposite side of the street.

"An elderly man driving an old touring car made a wide turn to avoid the truck when he evidently became confused in the dense smoke and drove over a pile of smartly burning dry leaves. Instantly the gasoline and accumulated oil in the drip pan burst into flames causing a much denser smudge. In his confusion he drove his burning car directly across the street against a building which I afterwards learned contained some fifty drums of gasoline and automobile oils.

"Here was a situation where a five minute delay would have resulted in the loss of building, contents, car, and nearby buildings. The car driver was frantic. The truck driver luckily appeared, quickly sized up the situation, calmly took a 2-gallon carbon tetrachloride extinguisher from the cab of his truck and extinguished the fire in the car in less time than it takes to tell the story. He drove away without giving his name, and the incident was so quickly closed that less than a half dozen persons were aware that a major catastrophe had been averted."

HONORABLE MENTION

C. P. TOWNSEND, *Chief*,
Fire Dept., Abbeville, South Carolina

GEORGE RAVELING,
Fire Dept., Rock Rapids, Iowa

F. F. MULLINS, *Assistant Chief*,
Fire Dept., Berea, Kentucky

Rules . . .

PYRENE PRIZE LETTER CONTEST

1. Contestants in the Pyrene Prize Letter Contest must be members of their local fire department.
2. Letters are to describe actual experiences where any approved fire extinguisher of any make has saved lives or property.
3. Trade names may be used but will be deleted in publication. Publishers reserve the right to edit winning letters to permit publication.
4. Each contestant automatically vouches for the truth of the facts presented from his own or others' experience.
5. Only one letter may be submitted each month.
6. Letters must be legibly written in ink or typewritten on white paper, one side only. Preference will be given to letters not over 250 words in length.
7. Letters received after the 15th of the month will be judged in following month's competition.
8. Monthly prizes in cash will be: 1st, $10.00; 2nd, $3.00; and 3rd, $2.00.
9. Address contest letter to Pyrene Prize Letter Contest, National Fire Protection Association, 60 Batterymarch Street, Boston, Mass.

MEMBERSHIP PLAN

Volunteer Firemen's Section National Fire Protection Association

WHERE twenty or more firemen in a volunteer company or department affiliate with the Volunteer Firemen's Section the cost is 50 cents a year *per man*. Each fireman will receive one copy of VOLUNTEER FIREMEN, the monthly journal of the Volunteer Firemen's Section, mailed regularly to his home address. The company or department automatically becomes a member of the National Fire Protection Association and is entitled to full privileges of membership. All the literature regularly issued to N.F.P.A. members is mailed to headquarters of the company or department.

Membership may be applied for by one member of the company or department collecting 50 cents for each of the 20 or more members and making a single remittance for the group, or the company or department may take a membership for its men and make a single remittance from the company or department treasury.

Companies With Less Than Twenty Members

Because of the large amount of material mailed to members, not less than $10.00 can be accepted from any company or department for membership dues. In the case of companies or departments with less than twenty men this means that the cost divided among them will be slightly higher per man. Of course, some such companies or departments may prefer to make a single remittance of $10.00 from the company or department treasury. In other cases a few interested citizens, not members of the company or department, may be glad to contribute 50 cents apiece to make up the required minimum of twenty, so that the members may secure the rate of 50 cents per man.

These companies or departments have full privileges of N.F.P.A. membership as above, and each member receives the monthly magazine, VOLUNTEER FIREMEN, at his home.

The Travelers Standard

Some Results of Using Flammable Liquids in Homes

DURING the last five years 91 persons were killed in dwelling house fires resulting from the use of gasoline to start fires in stoves. While some of these victims believed they were using kerosene, others were ignorant or foolish enough to use gasoline deliberately. Kerosene used to start fires was responsible for 295 deaths. The use of flammable liquids for home dry cleaning caused 102 deaths, mostly women. These figures are tabulated from reports of fires sent to the Department of Fire Record of the National Fire Protection Association, and represent only about 15 per cent of the total number of deaths from each of the above causes occurring in the United States during the five-year period.

Using gasoline as shown in the picture above is dangerous business. (Needless to say, gasoline was not actually used when making the picture.) Gasoline vapor easily finds its way to stoves or is ignited by sparks. A pint of gasoline has been likened to a pound of dynamite. Fire departments need to warn their citizens frequently of such dangers.

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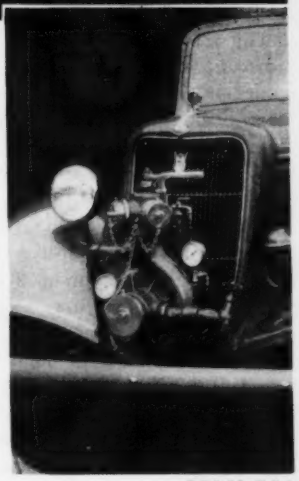

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